



G+D Filia Unplugged brings offline capability to digital payments

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Giesecke+Devrient

SecurityTech company Giesecke+Devrient (G+D) is making digital payments independent of online connectivity. The token-based payment solution [G+D Filia Unplugged](#) ■ enables consecutive, secure offline payment transactions anytime and anywhere, bridging the gap between seamless online and offline payments without a reliable internet connection.

Even in today's digital-first economy, connectivity issues can present challenges for digital payment transactions, especially in rural areas. The lack of connectivity may be due to a power outage, the absence of a strong internet signal, or a telecommunications failure. The efficiency of online payment systems is fundamentally linked to the availability of a stable internet connection. In highly industrialized economies, internet access is not uniformly reliable. In developing countries, the situation is particularly challenging as the infrastructure for reliable internet access is often insufficient. These outages result in the inability of individuals to access financial services and to perform the services themselves. Incorporating offline capabilities into digital payments can overcome these challenges. The Bank for International Settlements (BIS) defines offline payments as the transfer of a digital money token between devices that takes place without the payer and payee requiring a networked connection to any ledger system or backend system to complete the payment.

G+D Filia Unplugged makes digital offline transactions a reality. It can be integrated seamlessly into existing digital payment offerings, including commercial banks' tokenized deposit systems, instant payment systems, or mobile money services. The solution is designed with three protection layers and cash-like features to provide reliability, security, and trust while functioning independently of internet connectivity. The introduction of a token-based solution such as G+D Filia Unplugged not only strengthens payment resilience but also has the potential to drive financial inclusion for nearly [1.4 billion unbanked people worldwide](#) ■.

How Filia Unplugged works

G+D Filia Unplugged provides digital payments with the same advantages as cash, including privacy protection, and high levels of data security. For societies that primarily use cash, this new feature offers significant opportunities. It provides another convenient and secure method for people to make digital transactions without the need for expensive devices like smartphones. A simple smart card can help them start making digital transactions at a low cost.

The offline function also enables use cases such as peer-to-peer payments (P2P) between individuals or payment-to-business payments (P2B). The technology behind G+D Filia Unplugged functions like many streaming services, which allow users to download audio or video files that can then be played offline. The solution stores monetary tokens on a hardware wallet (e.g. the SIM card of a smartphone) and requires only two wallets to operate, which can then be used without an online connection, for example via Near Field Communication (NFC).

Offline payment functionality offers benefits for all stakeholders in the financial industry

As a [BIS study](#) ■ from 2023 underlines, offline functionality is also a necessity for a Central Bank Digital Currency (CBDC), which is currently being explored by numerous central banks worldwide. The success of several CBDC pilot projects around the globe has demonstrated the importance of offline payments. This has highlighted the significance of CBDCs mirroring cash-like features like data security and privacy, with the ability to operate offline as a fundamental component. At the same time, commercial banks, Fintechs, instant payment systems and service providers for mobile payments benefit from the integration of offline capabilities into their payment systems. This allows the expansion of their customer base by offering more inclusive and resilient payment services.

"Offline payments are the missing link in the digital payment sphere. With Filia Unplugged, we are helping to bridge this gap," explains Dr. Raoul Herborg, Managing Director Central Bank Digital Currency at G+D. "The capability of paying also offline in an existing digital system can enhance financial inclusion and payments resilience, support cash-like features in the digital world, and drive innovative use cases for the tokenized economy."

G+D Filia Unplugged is launched during the [Point Zero Forum](#) ■ taking place in Zurich from July 1 to 3, 2024.



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About Giesecke+Devrient

Giesecke+Devrient (G+D) is a global SecurityTech company headquartered in Munich, Germany. G+D makes the lives of billions of people more secure. The company shapes trust in the digital age, with built-in security technology in three segments: Digital Security, Financial Platforms and Currency Technology.

G+D was founded in 1852 and today has a workforce of more than 14,000 employees. In the fiscal year 2023, the company generated a turnover of 3 billion euros. G+D is represented by 123 subsidiaries and joint ventures in 40 countries.

Further information: www.gi-de.com.